

## Global Temperature Method - Satellite versus Ground Data

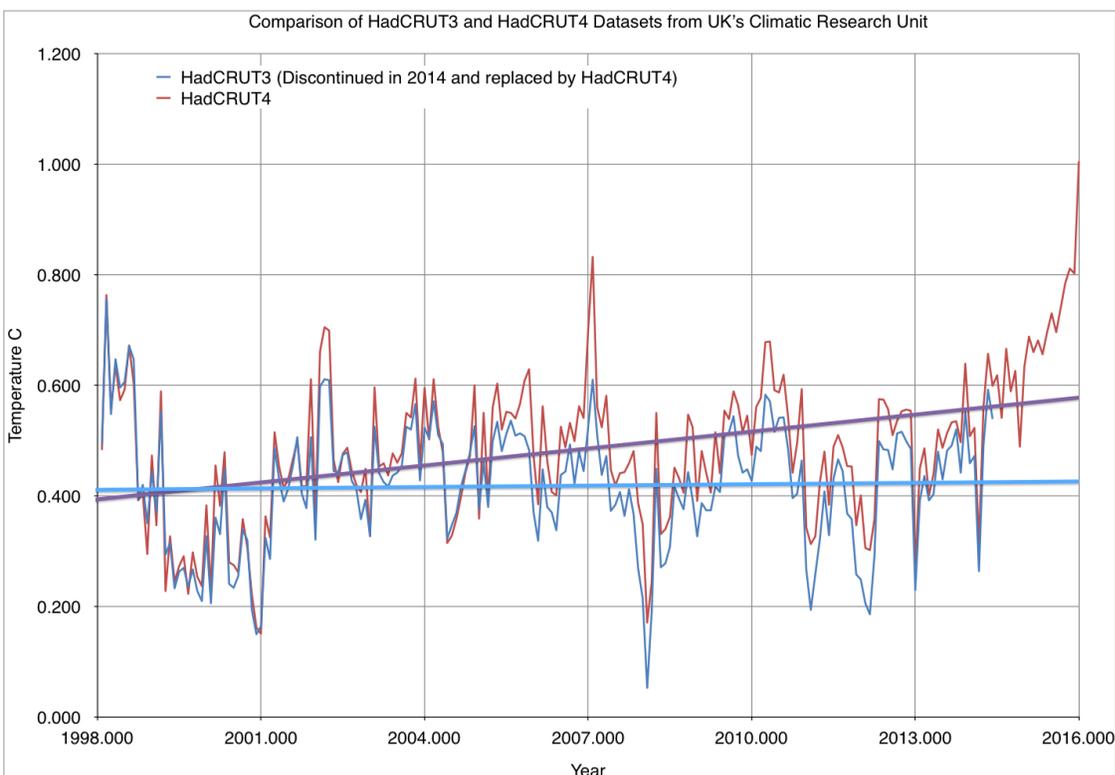
Gene Grush 1/20/16

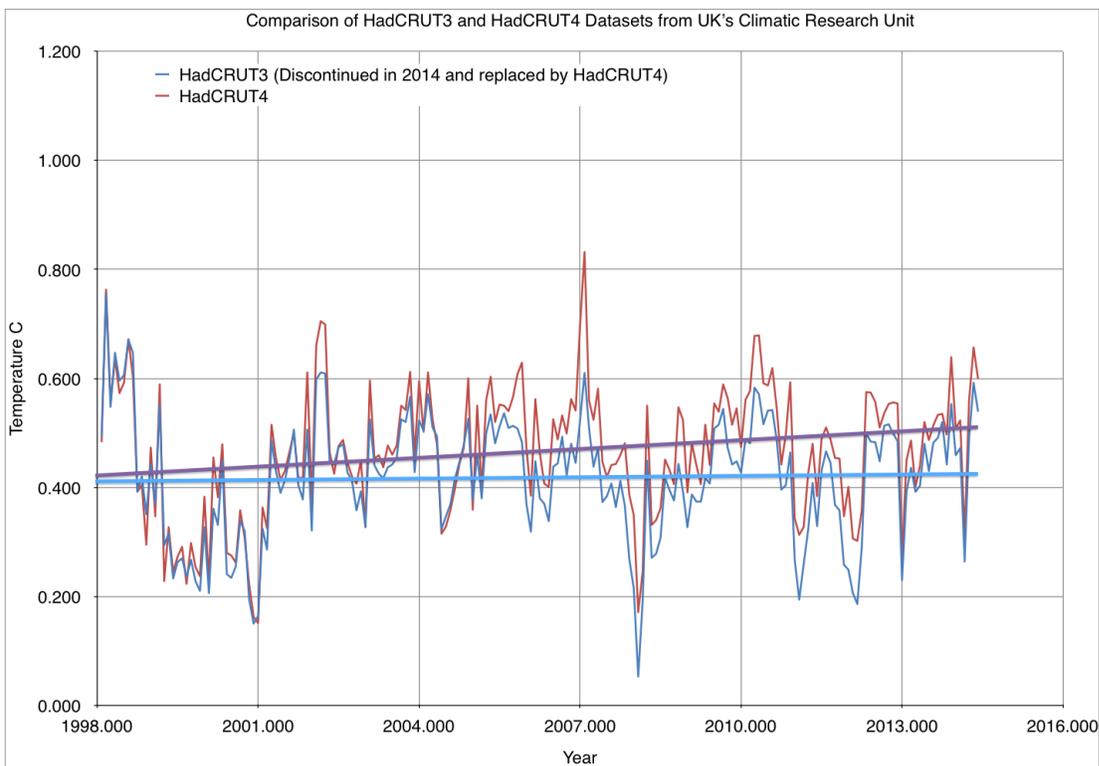
There is a lot of controversy concerning global warming (aka climate change). Historical and current global temperature is key to this discussion. So what does the data tell us?

First, there are two methods used to estimate what the average global surface temperature is. One relies on ground station data and the other uses satellite data. The US (NOAA / NASA), UK, and Japan have their own methods for using ground stations. Dr. Roy Spencer (UAH) and Dr. Carl Mears' (RSS) use satellite data. Recently published data from the ground station method shows a slight increase in temperature from 1998 to 2015 with a large spike in December of 2015. In contrast, data from the satellite method shows a slight decrease in temperature from 1998 to 2015 with a smaller pike in December of 2015. Which data set is correct? Which data should we believe?

There has been a lot of discussion lately about possible manipulation of the ground data to prove Earth's temperature has been increasing. As stated above, the satellite data doesn't show the increase the ground data does. Not being an expert in the use of this data, it is hard for me to prove that climate change "advocates" have intentionally manipulated the ground temperature to show a rise. However it is interesting to note that the ground data set "HadCRUT3" was discontinued in late 2014 and replaced with "HadCRUT4" under the premise that "HadCRUT3" was not "accurate" enough. [Maybe the problem was that HadCRUT3 showed the same flat data trend as the satellite data?]

To satisfy myself, I did side by side plots of the UK's original HadCRUT3 data set and the new "improved" HadCRUT4 datasets (see below). Since HadCRUT3 was discontinued in 2014, I created two different plots - the first plot is from 1998 to 2014; the second continues through 2015. Both plots indicate that HadCRUT4 shows a temperature increase using the spreadsheet's linear average while HadCRUT3 shows no increase. The second plot with data through 2015 shows a higher slope in the temperature increase (as expected due to the higher 2015 data).

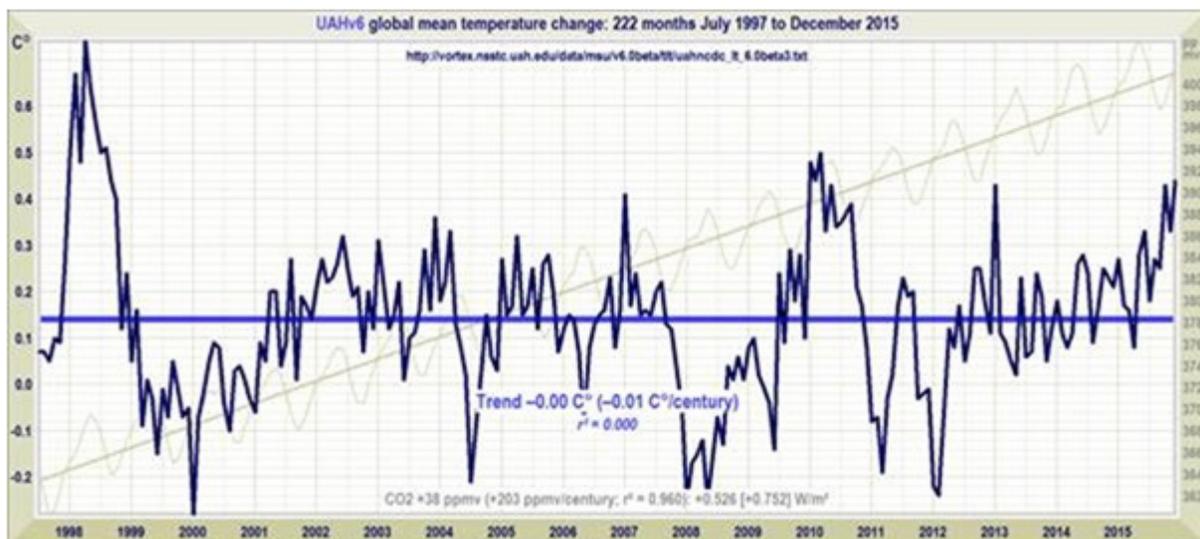




These plots show that two different conclusions on global warming exist depending on the data used.

So what about the satellite data? [For a comparison of ground data versus satellite data, go to the following link (an excellent discussion of the different data sets). <http://wattsupwiththat.com/2016/01/13/the-bject-failure-of-official-global-warming-predictions/> ]

Here is one example of the Satellite Data from Roy Spencer's data set. Based on the original ground data and the satellite data there has been no significant temperature increase for 18 years and counting. Maybe even a decrease.



For me, the satellite data seems a much better method for predicting global temperatures because there are not temperature stations everywhere and they are not equally spaced. [Plus apparently the so called climate experts started adjusting the ground station data in 2015 when it didn't give them the answers they wanted.] The satellites have a view of most of the Earth.

This, and the above data, raises several question: why doesn't the official organizations in the US and UK have a satellite method also? And was the new data set HadCRUT4 manipulated specifically to show a temperature increase?

I have my suspicions. You be the judge.

So when you hear that the global temperature is rising year by year, consider the data that is out there. Unlike what the climate change "advocates" keep trumpeting, I do not believe the science is completely settled.